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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/041,875	01/07/2002	Peter S. Mautino	MCT 01501	4951
5073	7590	07/18/2005	EXAMINER	
BAKER BOTTS L.L.P. 2001 ROSS AVENUE SUITE 600 DALLAS, TX 75201-2980			JULES, FRANTZ F	
			ART UNIT	PAPER NUMBER
			3617	

DATE MAILED: 07/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/041,875

Applicant(s)

MAUTINO ET AL.

Examiner

Frantz F. Jules

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 10-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 10-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the recitation of "said transition section including a top metal section and a bottom metal section" must be shown or the feature(s) canceled from the claim(s) since what appear to be a top metal section extending toward a bottom metal section is not label as a transition section. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 1-6, 10-19 are objected to because of the following informalities:

In claim 1, lines 6-7, the phrase "said pivot pinhole" should be deleted. Similar correction should be made to claim 13, lines 5-6, claim 15, lines 6-7.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 5-6, 12-17, 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Hawthorne et al (US 5,582,307).

Hawthorn et al discloses in Figs 1-7 a coupler knuckle casting having an enhanced bearing surface area comprising a tail section (18), a hub section (30) having a pivotable pinhole (16) formed therein with generally straight cylindrical sidewalls, a front face section (24A) connected to said hub section (30), said front face section including a nose section (22) and a pulling face portion (24) formed inwardly from said nose section, at least a portion of said front face portion and said nose section includes an enhance bearing surface area which includes a substantially flat portion (22A) disposed substantially in a vertical direction and which is substantially arcuate in a horizontal direction said substantially flat portion extending for a predetermined distance in said vertical direction and for a predetermined length along said horizontal direction at 22as

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shown in fig. 2, and a transition section (12) joining said tail section (18) to said hub section (30), said transition section including a top metal section (12A) and a bottom metal section (12B) extending toward each other, wherein said nose section (22) includes a generally cylindrical opening (36) formed in an end portion thereof, see column 3, lines 26-34, column 5, lines 10-15.

wherein said predetermined length along said horizontal direction which is substantially arcuate extends over at least a portion of said hub section at 28A, said front face section at 24A and at least a portion of said nose section as seen in fig. 2 see attached sketch.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-4, 10-11, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hawthorne et al (US 5,582,307).

Claims 2-4, 10-11, 18

Regarding using a substantially flat portion extending in the vertical direction in a range between about 3.5 to 7.0 inches, or a range between about 4.0 to 5.5 inches, and an enhanced bearing surface area hardened to at least about 40 Rockwell C as recited in claims 2-4, 10-11 and 18 it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hawthorne et al to include the use of a substantially

flat portion extending in the vertical direction in a range between about 3.5 to 7.0 inches, or a range between about 4.0 to 5.5 inches, and an enhanced bearing surface area hardened to at least about 40 Rockwell C in his advantageous system, as knuckle engagement surface design is a common and everyday occurrence throughout the coupler knuckle design art and the specific use of a substantially flat portion extending in the vertical direction in a range between about 3.5 to 7.0 inches, or a range between about 4.0 to 5.5 inches, and an enhanced bearing surface area hardened to at least about 40 Rockwell C would have been an obvious matter of mechanical expediency depending upon such factors as the loading imposed on the knuckle, the allowable lateral displacement between the coupler, the yield strength of the side knuckle material; the ordinarily skilled artisan choosing the best stress profile corresponding to a particular loading imposed on the knuckle which would most optimize the cost and performance of the device for a particular application at hand, based upon the above noted common design criteria.

7. Claims 1-6, 10-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Hanula et al (US 4,645,085) in view of Kaufhold (US 3,857,495).

Hanula et al discloses a coupler knuckle casting having an enhanced bearing surface area comprising a tail section (18), a hub section (30') having a pivotable pinhole (50') formed therein with generally straight cylindrical sidewalls, a front face section connected to said hub section, said front face section including a nose section (A) and a pulling face portion (B) formed inwardly from said nose section which includes an

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enhance bearing surface area,, a substantially flat portion in the hub section at D and in the front face portion at B, and a transition section (C) joining said tail section (18) to said hub section (30'), said transition section including a top metal section (62') and a bottom metal section extending toward each other, wherein said nose section includes a generally cylindrical opening formed in an end portion thereof.

Hanula et al disclose all of the features as listed above but fail to disclose a coupler knuckle having a substantially flat portion disposed substantially in a vertical direction and extending for a predetermined distance in a vertical direction in at least a portion of the nose section, the hub and the front face section. The general concept of providing a substantially flat portion disposed substantially in a vertical direction extending for a predetermined distance in a vertical direction in at least a portion of the nose section of a coupler knuckle is well known in the art as illustrated by Kaufhold, see figs. 1-10, abstract section. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hawthorn to include the use of a substantially flat portion disposed substantially in a vertical direction and extending for a predetermined distance in a vertical direction in at least a portion of the nose section and the front face portion, the hub and the front face section of a coupler knuckle as taught by Kaufhold in order to prevent formation of an overturning moment force on the coupler knuckle during coupling.

Claims 2-4, 10-11

Regarding using a substantially flat portion extending in the vertical direction in a range between about 3.5 to 7.0 inches, or a range between about 4.0 to 5.5 inches, and an

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enhanced bearing surface area hardened to at least about 40 Rockwell C as recited in claims 2-4, 10-11 it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hawthorne et al to include the use of a substantially flat portion extending in the vertical direction in a range between about 3.5 to 7.0 inches, or a range between about 4.0 to 5.5 inches, and an enhanced bearing surface area hardened to at least about 40 Rockwell C in his advantageous system, as knuckle engagement surface design is a common and everyday occurrence throughout the coupler knuckle design art and the specific use of a substantially flat portion extending in the vertical direction in a range between about 3.5 to 7.0 inches, or a range between about 4.0 to 5.5 inches, and an enhanced bearing surface area hardened to at least about 40 Rockwell C would have been an obvious matter of mechanical expediency depending upon such factors as the loading imposed on the knuckle, the allowable lateral displacement between the coupler, the yield strength of the side knuckle material; the ordinarily skilled artisan choosing the best stress profile corresponding to a particular loading imposed on the knuckle which would most optimize the cost and performance of the device for a particular application at hand, based upon the above noted common design criteria.

Response to Arguments

8. Applicant's arguments filed 10/06/2003 have been fully considered but they are not persuasive.

A. Summary of applicant's argument

In the amendment, applicant traversed the rejection of claims 1-6, 10-16 for the following reasons:

1. Applicants have amended independent claims 1, 13 and 15 to include the subject matter of claim 7 which the examiner indicated as allowable and cancelled claims 7-9.

B. Response to applicant's argument

1. Applicant has amended claims 1, 13 and 15 to remove the limitations of "said predetermined length extends over at least a portion of said hub section and said front face section and at least a portion of said nose section" which was considered as part of the allowable subject matter, renders the claims broader in scope.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Metzger, Ion et al are cited to show related rail car coupler comprising flat portion in a substantially vertical portion.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frantz F. Jules whose telephone number is (703) 308-8780. The examiner can normally be reached on Monday-Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph S. Morano can be reached on (703) 308-0230. The fax phone numbers for the organization where this application or proceeding is assigned are (703)

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305-7687 for regular communications and (703) 305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

Frantz F. Jules
Primary Examiner
Art Unit 3617

FFJ

July 13, 2005

**FRANTZ F. JULES
PRIMARY EXAMINER**

A handwritten signature in black ink, appearing to read 'Frantz F. Jules', written over the printed name and title.